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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,894	08/27/2002	Deepa Ramaswamy	200-1576	7972

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EXAMINER

MARC COLEMAN, MARTHE Y

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/064,894

Applicant(s)

RAMASWAMY ET AL.

Examiner

Marthe Y Marc-Coleman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

MYM

- 1) ☒ Responsive to communication(s) filed on Phone interview dated 3/28/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to interview dated 4/28/04.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 4, 6, and 11-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizuno et al. (U.S. Patent No. 6,555,928).

In regard to claim 1, Mizuno et al. discloses a modular vehicle system controller for use with a hybrid electric vehicle (see col. 4 lines 49-52), said controller comprising a plurality of removable control portions (**30, 36, 38**) (see col. 12 lines 12-40), wherein

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each of said plurality of portions corresponds to a certain vehicle functionality (see col. 12 lines 3-40).

In regard to claim 4, Raffari et al. discloses that said hybrid electric vehicle includes a battery pack and wherein said plurality of controls portions further includes a battery management control portion which is effective to control opening and closing of contactors within the battery pack, monitor the battery pack for faults, and process the battery pack power limits (see col. 12 lines 12-40).

In regard to claim 6, Mizuno et al. discloses that said hybrid electric vehicle includes at least one power source, and wherein said plurality of control portions further includes an energy management control portion which is effective to control the delivery of power to said vehicle by said at least one power source (see col. 12 lines 12-40).

In regard to claims 11-18, Mizuno et al. discloses a method of organizing a vehicle system controller for use with a hybrid electric vehicle (see col. 4 lines 49-52), said method comprising the step of partitioning said controller into a plurality of removable control portions, each respective control portion corresponding to a particular hybrid electric vehicle drive system functionality vehicle functionality (**30, 36, 38**) (see col. 12 lines 12-40). Mizuno et al. also discloses that said step of partitioning said controller into a plurality of control portions wherein each of the control portions

corresponding to particular vehicle functionality further comprises the step or logically grouping said plurality of control portions into functional group (see col. 12 lines 12-40).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 5, 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno et al. (U.S. Patent No. 6,555,928) in view of Raffari et al. (U.S. Patent No. 6,490,511).

In regard to claims 2, 3, 5, 7-10, Mizuno et al. fails to disclose the limitations of the claims.

In regard to claims 2, 3, 5, 7-10, Raffari et al. discloses that said plurality of portions includes a vehicle mode control portion which is effective to select an operating mode of said vehicle (see Fig. 4 and col. 2 lines 14-28). Raffari et al. further discloses that said plurality of portions further includes an output torque requestor control portion which is effective to receive torque commands from a plurality of vehicle subsystems and to determine a total output torque (see Figs. 4 and 5). Raffari et al. also discloses that said plurality of control portions further includes a driver information control portion which is effective to receive signals from vehicle sensors and to calculate vehicle operating data which is conveyed to a driver of said vehicle (see Fig. 3). Further, Raffari

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et al. discloses that said plurality of control portions further comprises a brake system control portion which controls regenerative and engine compression braking functions within said vehicle (see Fig. 4). In addition, Raffari et al. discloses that said plurality of control portions further comprises a torque estimation control portion which estimates an amount of torque produced by said at least one power source (see col. 5 lines 21-33 and col. 7 lines 39-47). Raffari et al. discloses that said at least one power source comprises an internal combustion engine (see abstract). Raffari et al. discloses that said plurality of control portions further comprises an engine control portion which controls a process and timing of when to startup and shutdown said internal combustion engine (see col. 2 lines 53-64).

At the time of the invention, it would have been obvious to one skilled in the art incorporate the additional module of Raffari et al. into the control system of Mizuno et al. because it would provide a more compact desirable system wherein the vehicle owner has the option of adding additional modules to the vehicle controller.

Response to Arguments

6. Applicant's arguments filed on September 15, 2003 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marthe Y Marc-Coleman whose telephone number is

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(703) 305-4970. The examiner can normally be reached on Monday-Thursday from 9:30 AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tomas G Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Marthe Y. Marc-Coleman
Marthe Y. Marc-Coleman

April 28, 2004